




UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/555,320	08/15/2000	PAUL VINCENT	P-5808	1525
7590 10/18/2004			EXAMINER	
MICHAEL L KENAGA RUDNICK & WOLFE P O BOX 64807 CHICAGO, IL 60664-0807			NGUYEN, STEVEN H D	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/555,320	Applicant(s)  VINCENT ET AL.	
	Examiner Steven HD Nguyen	Art Unit 2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Silventionen (GB 2309357) in view of Grude (USP 5239678).

Silventionen discloses (Figs 1-11 and Pages 1-23) a microcell base station (Fig 2, Ref 231) for a multilayer radio communication cellular network comprising a wire interface (Fig 2, Ref 232) for connection to a wire access network and an air interface (Fig 2, Ref 231 has a wire and air interface for communicating with a mobile device 201 via radio frequency using time division multiple access having the frames wherein each frame is divided into the time slots; See Fig 8, Frames 802-806 and each frame has 8 time slot; See Fig 6) for communicating by radio with mobile station in accordance with a time division multiple access operating mode, with

Art Unit: 2665

signal frames each divided into a number N of successive timeslots, wherein telephone communications involving a mobile station located within radio range of the equipment can be established through the wire network by means of the wire interface and the air interface, wherein the air interface is arranged to transmit a radio signal in each timeslot of the frames on a beacon frequency wherein the radio signal transmitted on the beacon frequency comprises a beacon signal carrying signaling information (Fig 6 discloses each slot can be used for transmitting a signaling or user information; See page 9, lines 29 to page 11, lines 25 and Fig 8 discloses the slots of the frame 802 or 816 are used for signaling information). However, Silventionen fails to fully disclose the base station transmits signaling information in at least one timeslot as long as at most $N-1$ of the timeslots of the frame on the beacon frequency are occupied by communications with mobile stations and stops transmitting the beacon signal when the N timeslots on the beacon frequency are occupied by communications with mobile stations. In the same field of endeavor, Grube discloses (Figs 1-8 and col. 1, lines 5 to col. 9, lines 50) a method and system comprising the base station (Fig 1B, Ref 151) transmits signaling information in at least one timeslot as long as at most $N-1$ of the timeslots of the frame on the beacon frequency are occupied by communications with mobile stations (control “at least one time slot used for transmitting signaling” and traffic channels “the other timeslot assigned for voice communication between the base station and mobile” for transmitting and receiving signaling/voice information between the base station and mobiles; See col. 2, lines 59-30); stops transmitting the beacon signal when the N timeslots on the beacon frequency are occupied by communications with mobile stations (when the control channel is used for transmitting the

voice information between the base station and mobiles, the base station is not transmit signaling to the mobiles; See Abstract and See col. 2, lines 59-30).

Since, Silventionen suggests a system and method for allowing the timeslots of frames carrying signaling or traffic information. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for converting a control channel into a traffic channel after N-1 timeslots allocated to the mobiles as disclosed by Grude's into Silventionen's system and method. The motivation would have been to increase the capacity and delay of the system to accept the calls.

Response to Arguments

4. Applicant's arguments filed 7/7/04 have been fully considered but they are not persuasive.

In response to page 2-3, the applicant states that Silventoinen and Grude fail to disclose (1) a beacon signal which is a normally broadcast by a base station in order to allow the mobile stations to detect the base station and to achieve space and time synchronization, list of frequencies of the beacons of neighbor cells wherein the beacon signal is carried on BCCH and (2) beacon signal is designed to be permanently broadcast and listened to by the mobiles.

5. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

6. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., beacon signal

which is a normally broadcast by a base station in order to allow the mobile stations to detect the base station and to achieve space and time synchronization, list of frequencies of the beacons of neighbor cells wherein the beacon signal is carried on BCCH) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With respect to (1) and (2), Silventoinen discloses a slot for using transmitting a signaling message “read beacon signal” from the base station to the mobiles via a signaling channel “read control channel” and using this channel for transmitting user information; See office action paragraph 3. and Grude discloses a control channel for transmitting a control signal, signaling message, “read on beacon signal” to the mobile (Fig 2c, when the system which needs to convert a control channel into a voice channel, broadcast a signaling message via control channel to notifying the mobiles that the control channel suspend the transmission before assigning to the mobile for transmitting user information, See col. 5, lines 9 to col. 6, lines 11).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Silventoinen discloses a slot for using transmitting a signaling message “read beacon signal” from the base station to the mobiles via a signaling channel “read control channel” and

using this channel for transmitting user information (Fig 6 and 7) and Grude discloses a control channel for transmitting a control signal, signaling message, "read on beacon signal" to the mobile (Fig 2c, when the system which needs to convert a control channel into a voice channel, broadcast a signaling message via control channel to notifying the mobiles that the control channel suspend the transmission before assigning to the mobile for transmitting user information, See col. 5, lines 9 to col. 6, lines 11). The motivation would have been to increase the capacity and delay of the system to accept the calls.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lopponen (USP 5590400) discloses a method and system for converting the signaling channel into a traffic channel.

Jackson (USP 6023460) discloses a method and system for converting the signaling channel into a traffic channel.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 2665

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven HD Nguyen
Primary Examiner
Art Unit 2665
10/7/04